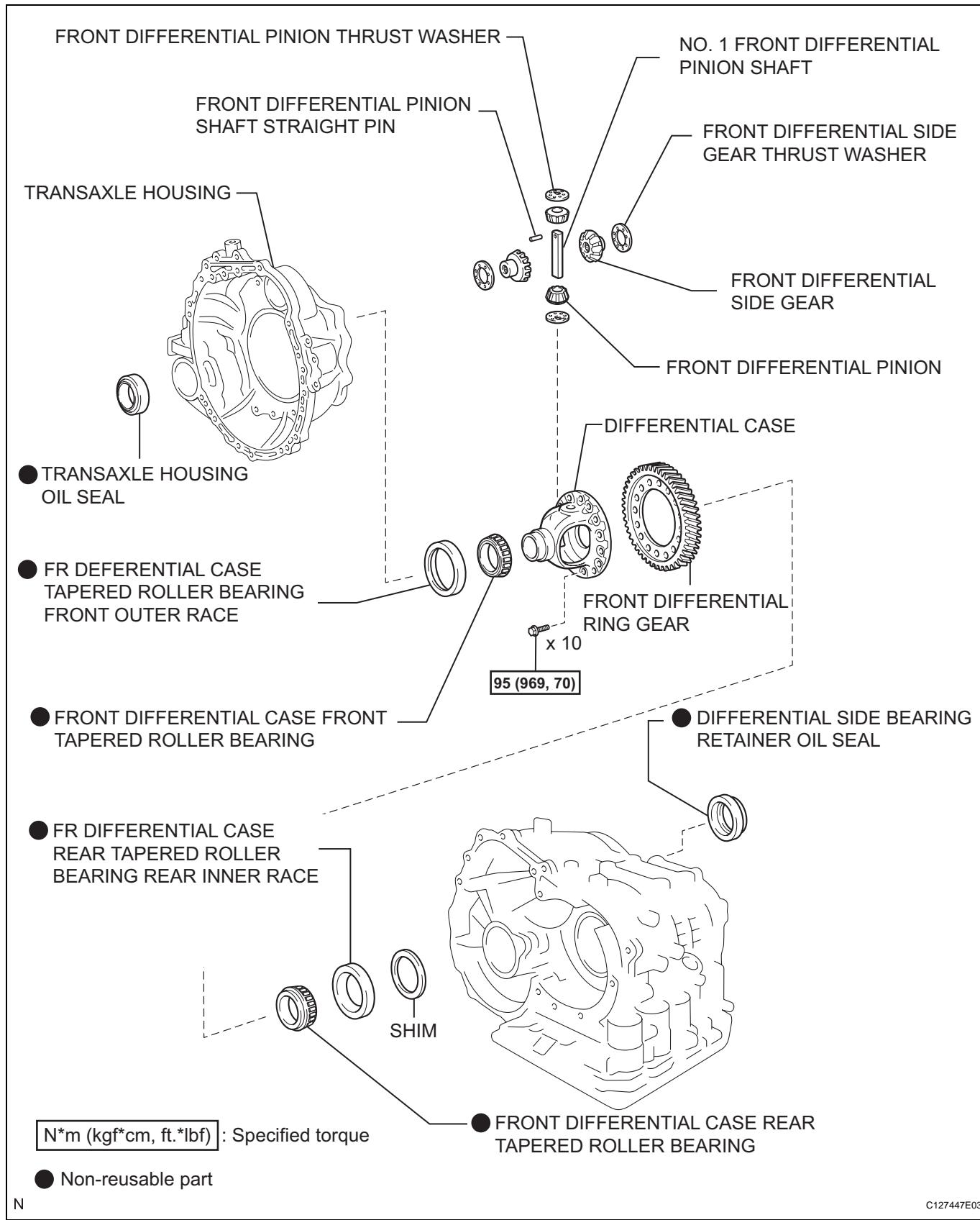


DIFFERENTIAL CASE

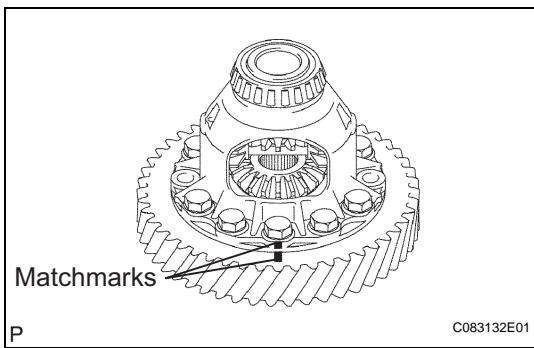
COMPONENTS



DISASSEMBLY

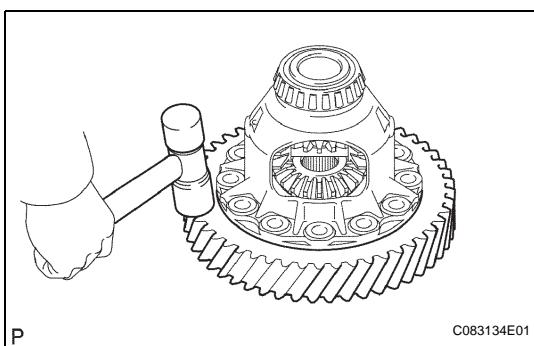
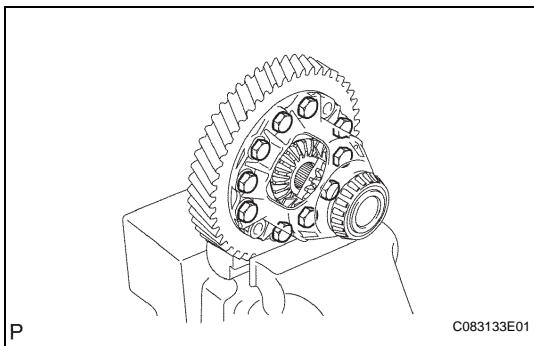
1. REMOVE FRONT DIFFERENTIAL RING GEAR

- Place the matchmarks on the ring gear and differential case.



AX

- Remove the 10 bolts.



- Using a plastic-faced hammer, tap on the ring gear to remove it from the case.

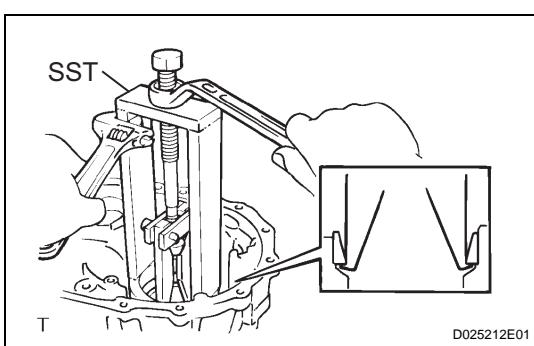
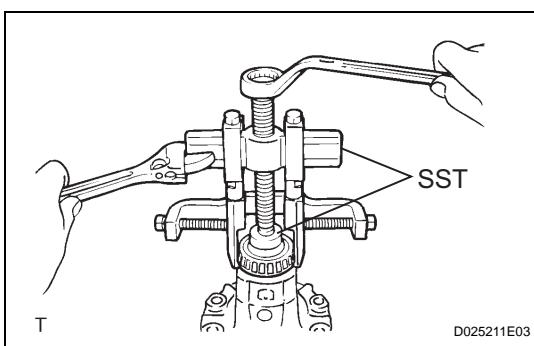
2. REMOVE FRONT DIFFERENTIAL CASE FRONT TAPERED ROLLER BEARING

- Using SST, remove the front differential case tapered roller bearing front inner race from the differential case.

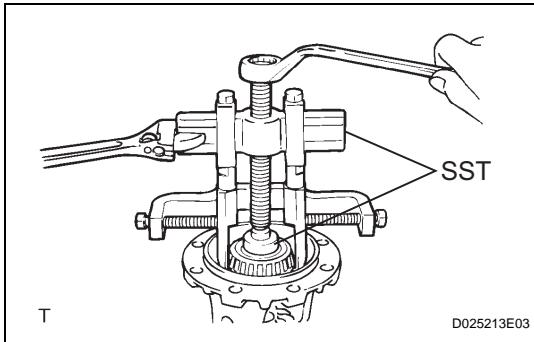
SST 09950-40011 (09951-04020, 09952-04010, 09953-04020, 09954-04010, 09955-04061, 09957-04010, 09958-04011), 09950-60010 (09951-00340)

- Using SST, remove the front differential case tapered roller bearing front outer race and differential case washer.

SST 09387-00041 (09387-01030, 09387-01040, 09387-02010, 09387-02020)



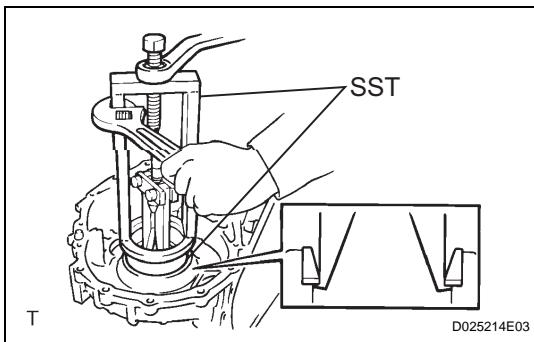
AX



3. REMOVE FRONT DIFFERENTIAL CASE REAR TAPERED ROLLER BEARING

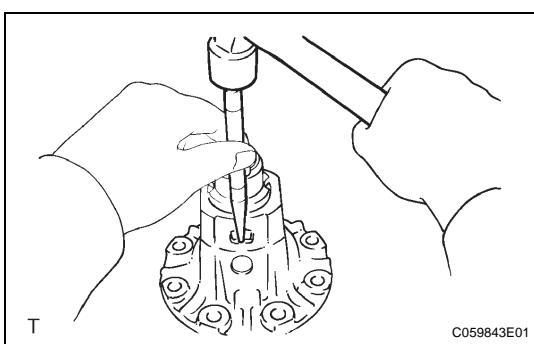
(a) Using SST, remove the front differential case tapered roller bearing rear inner race from the differential case.

SST 09950-40011 (09951-04020, 09952-04010, 09953-04020, 09954-04010, 09955-04061, 09957-04010, 09958-04011), 09950-60010 (09951-00340)



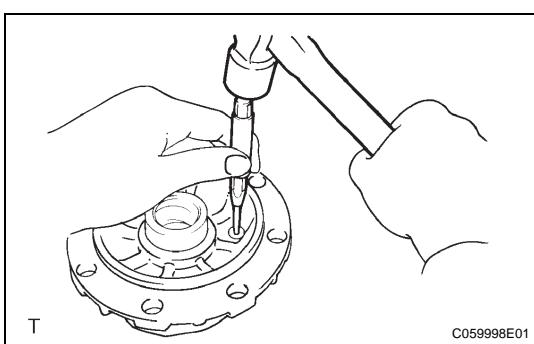
(b) Using SST, remove the front differential case tapered roller bearing rear outer race from the differential case washer.

SST 09387-00041 (09387-01030, 09387-01040, 09387-02010, 09387-02020)

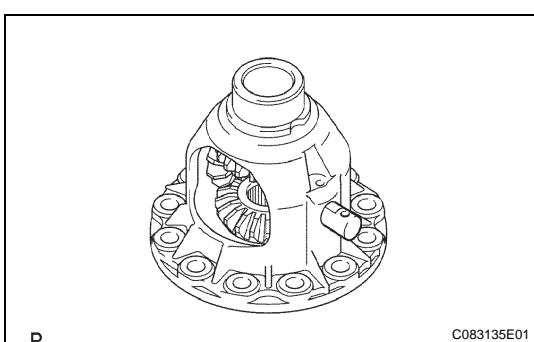


4. REMOVE FRONT DIFFERENTIAL PINION SHAFT STRAIGHT PIN

(a) Using a punch and hammer, loosen the staked part of the differential case.

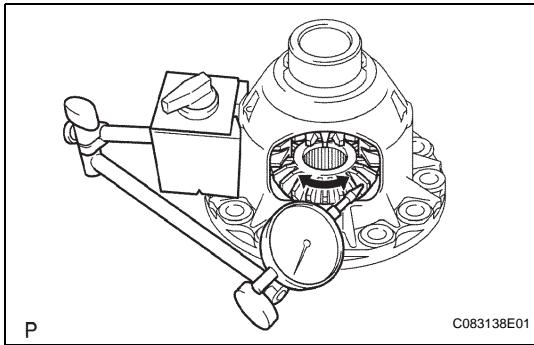
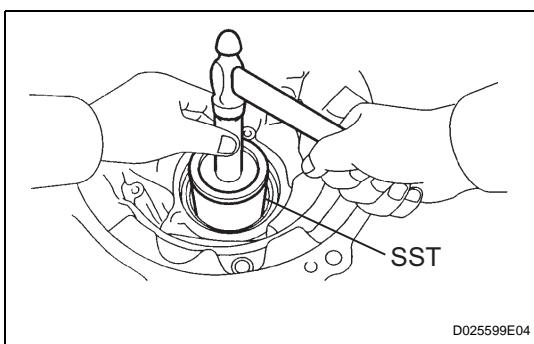
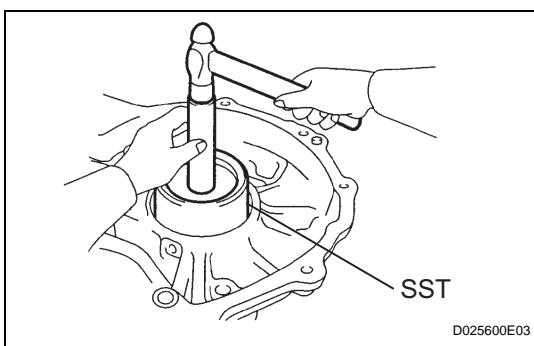
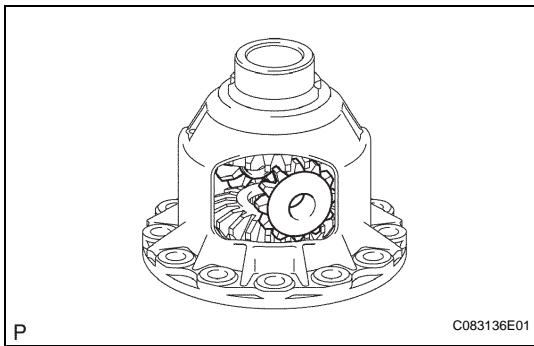


(b) Using a pin punch (5 mm), tap out the pin from the ring gear side.



5. REMOVE NO. 1 FRONT DIFFERENTIAL PINION SHAFT

(a) Remove the front differential pinion shaft from the differential case.



6. REMOVE FRONT DIFFERENTIAL SIDE GEAR

- Remove the 2 front differential pinions, 2 pinion thrust washers, 2 front differential side gears and 2 side gear thrust washers from the differential case.

AX

7. REMOVE DIFFERENTIAL SIDE BEARING RETAINER OIL SEAL

- Place the transaxle case in a vise.
- Using SST, remove the oil seal.

SST 09308-00010

8. REMOVE TRANSAXLE HOUSING OIL SEAL

- Place the transaxle housing in a vise.
- Using SST, remove the oil seal.

SST 09308-00010

INSPECTION

1. INSPECT FRONT DIFFERENTIAL SIDE GEAR BACKLASH

- Using a dial indicator, measure the backlash of the side gear.

Standard backlash:

0.05 to 0.20 mm (0.0020 to 0.0070 in.)

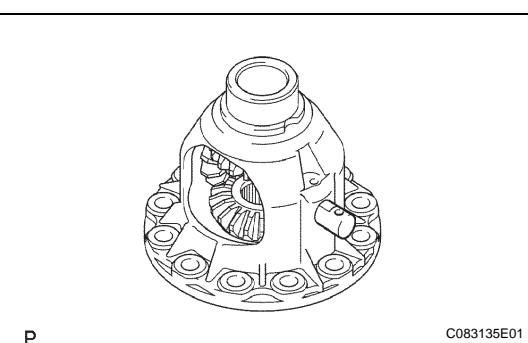
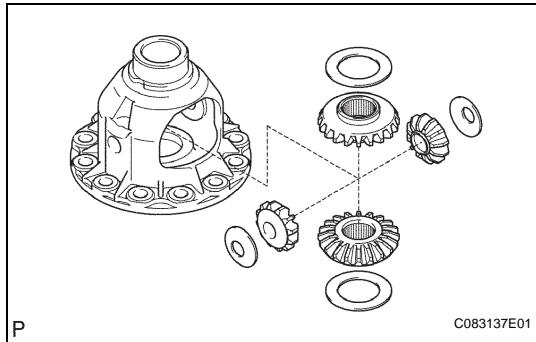
Standard thrust washer thickness

| Thickness | Thickness |
|---------------------|---------------------|
| 1.0 mm (0.0394 in.) | 1.2 mm (0.0472 in.) |
| 1.1 mm (0.0433 in.) | 1.3 mm (0.0512 in.) |

REASSEMBLY

1. INSTALL FRONT DIFFERENTIAL SIDE GEAR

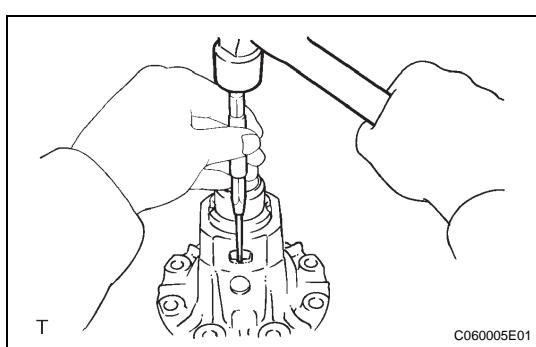
(a) Coat the 2 front differential side gears, 2 side gear thrust washers, 2 front differential pinions and 2 pinion thrust washers with ATF, and install them to the differential case.



2. INSTALL NO. 1 FRONT DIFFERENTIAL PINION SHAFT

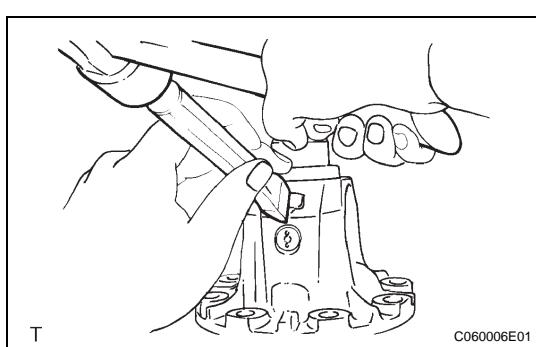
(a) Coat the front differential pinion shaft with ATF, and install it to the differential case.

3. INSPECT FRONT DIFFERENTIAL SIDE GEAR BACKLASH (See page [AX-257](#))



4. INSTALL FRONT DIFFERENTIAL PINION SHAFT STRAIGHT PIN

(a) Using a pin punch and hammer, tap in the pinion shaft straight pin.

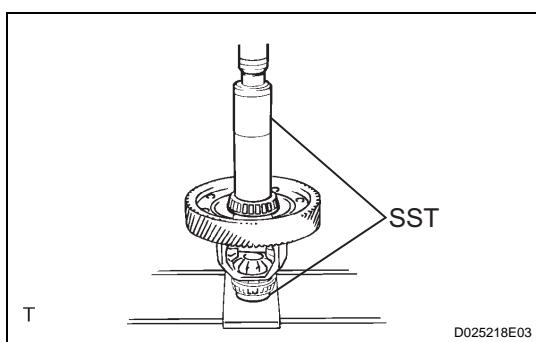


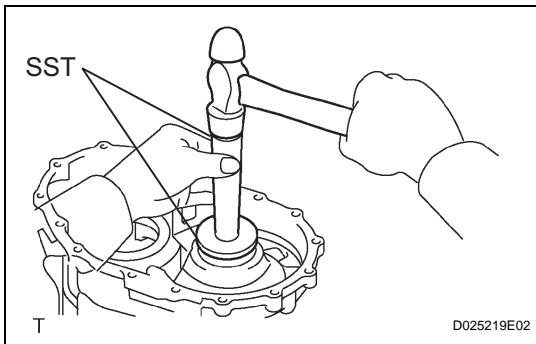
(b) Using a chisel and hammer, stake the differential case.

5. INSTALL FRONT DIFFERENTIAL CASE REAR TAPERED ROLLER BEARING

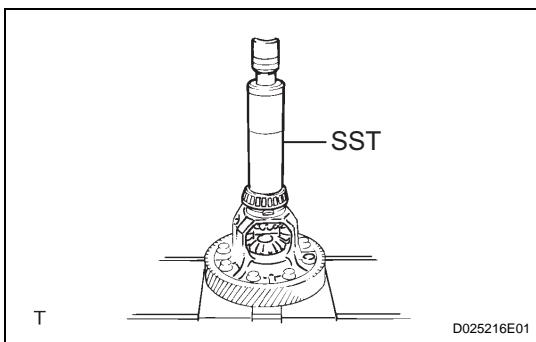
(a) Using SST and a press, press in the front differential case tapered roller bearing rear inner race to the differential case.

SST 09608-06041



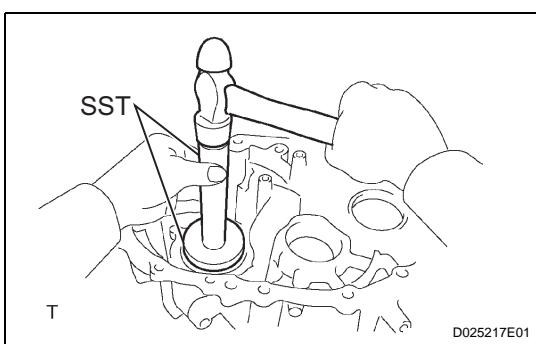


(b) Using SST and a hammer, tap in the case washer and front differential case tapered roller bearing rear outer race to the transaxle case.
SST 09950-60020 (09951-00710), 09950-70010 (09951-07100)

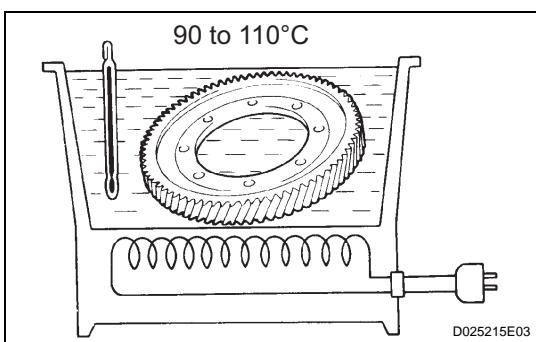


6. INSTALL FRONT DIFFERENTIAL CASE FRONT TAPERED ROLLER BEARING

(a) Using SST and a press, press in the front differential case tapered roller bearing front inner race to the differential case.
SST 09608-06041

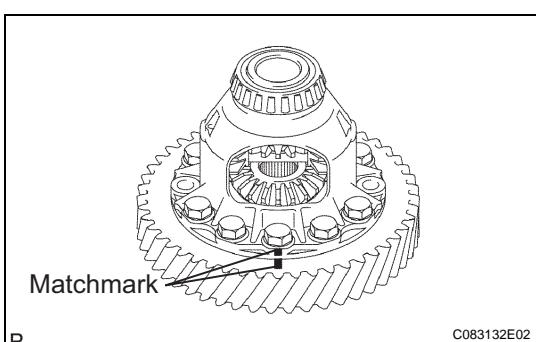


(b) Using SST and a hammer, tap in the front differential case tapered roller bearing front outer race to the transaxle housing.
SST 09950-60020 (09951-00680), 09950-70010 (09951-07100), 09950-60010 (09951-00340)



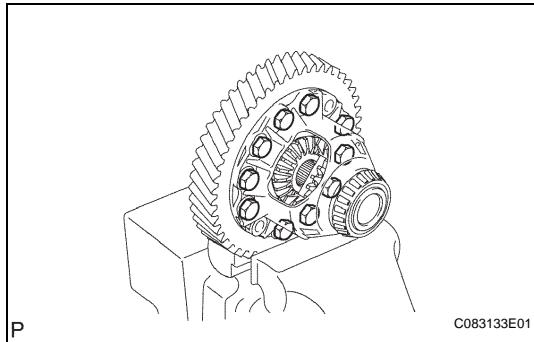
7. INSTALL FRONT DIFFERENTIAL RING GEAR

(a) Using ATF and heater, heat the front differential ring gear to 90 to 110°C (194.0 to 230.0°F).
(b) Clean the contact surface of the front differential case.

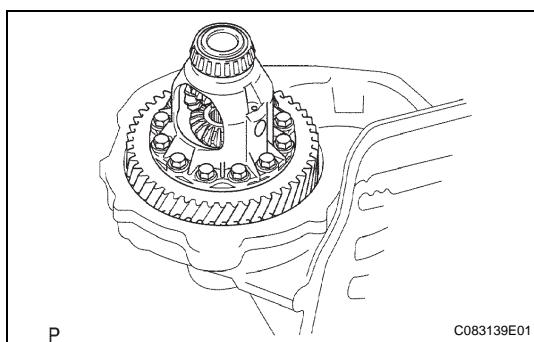


(c) Align the matchmarks, and install the front differential ring gear case quickly.

AX

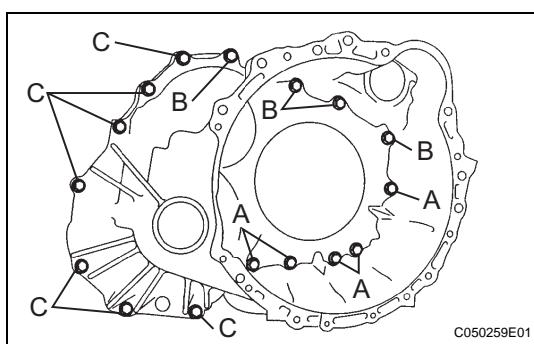


(d) Tighten the 10 bolts.
Torque: 95 N*m (969 kgf*cm, 70 ft.*lbf)



8. INSPECT TAPERED ROLLER BEARING PRELOAD

(a) Install the differential assembly to the transaxle case.
(b) Install the transaxle housing to the transaxle case.



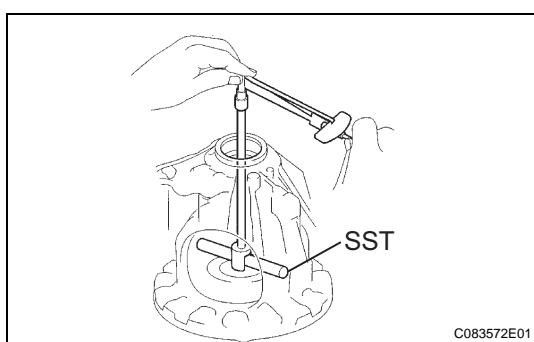
(c) Install the 16 bolts.
**Torque: 22 N*m (224 kgf*cm, 16 ft.*lbf) for bolt A
29 N*m (296 kgf*cm, 21 ft.*lbf) for bolt B and C**

HINT:

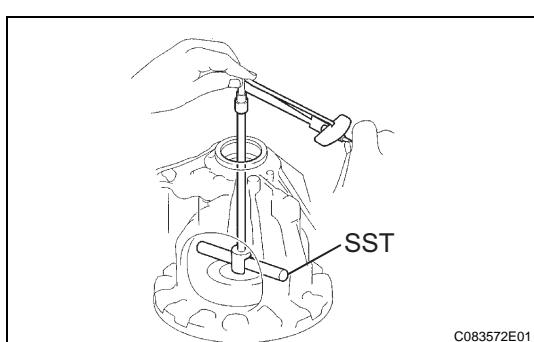
Each bolt length is indicated below.

Bolt length:

50 mm (1.97 in.) for bolt A and B
42 mm (1.65 in.) for bolt C



(d) Using SST, turn the differential.
SST 09564-32011

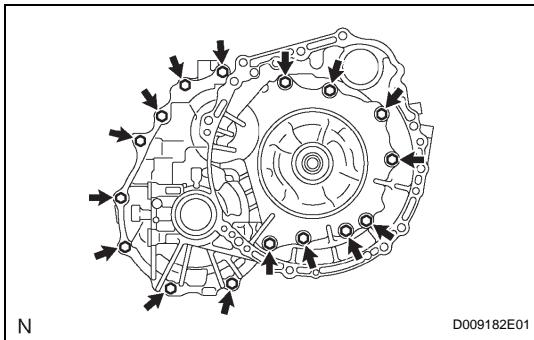


(e) Using SST and torque wrench, measure the preload of the differential.
SST 09564-32011
Torque: Standard turning torque at 60 rpm
0.20 to 0.69 N*m (2.0 to 7.0 kgf*cm, 1.8 to 6.1 in.*lbf) for new
0.10 to 0.35 N*m (1.0 to 3.6 kgf*cm, 0.9 to 3.1 in.*lbf) for used

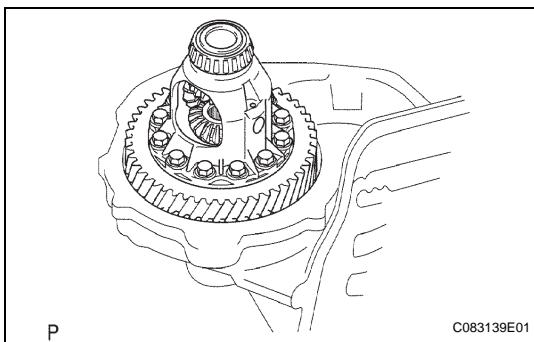
Standard adjusting shim thickness

| Mark | Thickness |
|------|---------------------|
| 0 | 1.90 mm (0.074 in.) |
| 1 | 1.95 mm (0.077 in.) |
| 2 | 2.00 mm (0.079 in.) |
| 3 | 2.05 mm (0.081 in.) |
| 4 | 2.10 mm (0.083 in.) |
| 5 | 2.15 mm (0.085 in.) |
| 6 | 2.20 mm (0.087 in.) |
| 7 | 2.25 mm (0.089 in.) |
| 8 | 2.30 mm (0.091 in.) |
| 9 | 2.35 mm (0.093 in.) |
| A | 2.40 mm (0.094 in.) |
| B | 2.45 mm (0.096 in.) |
| C | 2.50 mm (0.098 in.) |
| D | 2.55 mm (0.100 in.) |
| E | 2.60 mm (0.102 in.) |
| F | 2.65 mm (0.104 in.) |
| G | 2.70 mm (0.106 in.) |
| H | 2.75 mm (0.108 in.) |
| J | 2.80 mm (0.110 in.) |

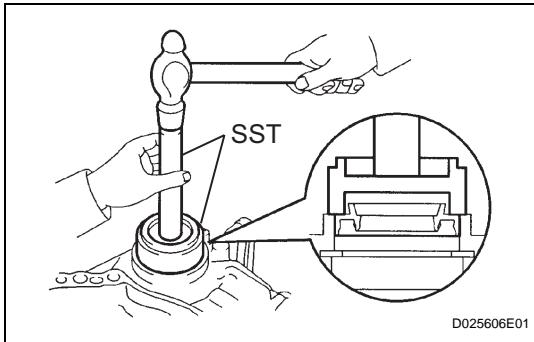
AX



(f) Remove the 16 bolts.
 (g) Using a practic-faced hammer, remove the transaxle housing.

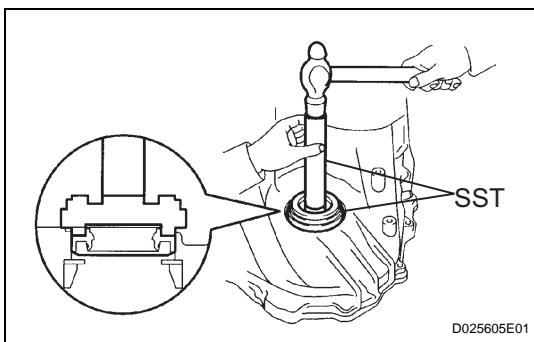


(h) Remove the differential.



9. INSTALL TRANSAXLE HOUSING OIL SEAL

- Coat the lip of a new oil seal with a little amount of MP grease.
- Using SST and a hammer, tap in the oil seal.
SST 09350-32014 (09351-32150), 09950-70010 (09951-07150)



10. INSTALL DIFFERENTIAL SIDE BEARING RETAINER OIL SEAL

- Coat the lip of a new oil seal with a little amount of MP grease.
- Using SST and a hammer, tap in the oil seal.
SST 09350-32014 (09351-32150), 09950-70010 (09951-07150)